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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,218	09/12/2003	Juergen Pensel	33997.0089	9107
26712 7590 01/30/2007 HODGSON RUSS LLP ONE M & T PLAZA SUITE 2000 BUFFALO, NY 14203-2391			EXAMINER STULTZ, JESSICA T	
			ART UNIT	PAPER NUMBER
			2873	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/30/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/662,218	<b>Applicant(s)</b> PENSEL ET AL.	
	<b>Examiner</b> Jessica T. Stultz	<b>Art Unit</b> 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>0806</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Examiner's Comments***

For applicant's information, the amendment to claim 9, filed August 24, 2006, overcomes the previous 112 rejection of this claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7-9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Volk US 5,424,789, herein referred to as Volk '789.

Regarding claim 1, Volk '789 discloses an ophthalmic microscope (Column 2, lines 31-36, wherein the biomicroscope is used as an ophthalmoscope) comprising: at least one observation beam path for intersecting with a patient's eye being viewed through the microscope (Column 3, line 47-Column 4, line 51, wherein the observation beam path originates from an illumination system "16" including an illuminating light source "18", Figures 1-2); and an apparatus for illumination of the patient's eye with illuminating light (Column 4, line 18-Column 6, line 9, wherein the apparatus for illuminating a patient's eye comprises the illumination system "16" including projecting lens "20" and optical system "28", Figures 1-4), wherein the apparatus includes means for selecting the spectral band and polarization of the illuminating light (Column 4, line 18-Column 6, line 9, wherein the optical system "28" portion of the illumination system "16" comprises lens "38" which changes the polarization or spectral transmission, i.e.

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spectral band, of the illumination beam, Figures 1-4) such that the illuminating light is reflected, absorbed, or scattered differently in different media of the patient's eye or at interfaces of different media of the patient's eye (Column 5, line 29-Column 6, line 58, wherein the illumination beam is modified to change the transmission, and thereby the reflection, absorption, and scattering characteristics of the illumination beam through different media of the patient's eye, Figures 1-4) .

That part of the claim stating "ophthalmic surgical microscope" is set forth in the preamble and has not been given patentable weight. Furthermore, stating, "ophthalmic surgical microscope" goes to the intended use of the ophthalmic microscope. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Regarding claim 7, Volk '789 further discloses that the apparatus for illumination of the patient's eye includes at least one light source emitting illuminating light (Column 3, line 47-Column 4, line 51, wherein the illumination beam originates from an illuminating light source "18", Figures 1-2); characterized by a specified spectral band and polarization (Column 4, line 18-Column 6, line 9, wherein the optical system "28" portion of the illumination system "16" comprises lens "38" which changes the polarization or spectral transmission, i.e. spectral band, of the illumination beam, Figures 1-4).

Regarding claim 8, Volk '789 further discloses that the apparatus for illumination of the patient's eye includes a light source (Column 3, line 47-Column 4, line 51, wherein the illumination beam originates from an illuminating light source "18", Figures 1-2); and at least

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one non-spatial filter selectably insertable after the light source for selecting the spectral band and polarization of the illuminating light (Column 4, line 18-Column 6, line 9, wherein the optical system "28" portion of the illumination system "16" comprises a non-spatial filter comprising lens "38" which changes the polarization or spectral transmission, i.e. spectral band, of the illumination beam, wherein the optical system "28" is selectively inserted or removed from the system as desired, Figures 1-4).

Regarding claim 9, Volk '789 further discloses that the apparatus for illumination of the patient's eye includes a lamp light source (Column 3, line 47-Column 4, line 51, wherein the illumination beam originates from an illuminating lamp light source "18", Figures 1-2).

Regarding claim 13, Volk '789 further discloses a filter selectably insertable into the observation beam path for visualization of the different media of the patient's eye (Column 4, line 18-Column 6, line 9, wherein the optical system "28" portion of the illumination system "16", which is used to view different portions, i.e. media of the patient's eye, comprises a non-spatial filter comprising lens "38", wherein the optical system "28" is selectively inserted or removed from the system as desired, Figures 1-4).

Claims 2-6 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Volk '789, as applied to independent claim 1 above, in view of Lashkari et al US 6,359,031, herein referred to as Lashkari et al '031.

Regarding claims 2-6 and 14-16, Volk '789 discloses an ophthalmic microscope as shown above, but does not specifically disclose that the ophthalmic microscope further comprises: a display for generating an optical display image in response to a driver signal received by the display; a first deflection element arranged in the observation beam path for

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diverting illuminating light reflected from the patient's eye out of the observation beam path; a sensor arranged to receive light diverted by the first deflection element, the sensor generating a sensor signal representative of the light received thereby; an evaluation unit connected to the sensor and to the display, the evaluation unit receiving and processing the sensor signal to provide a driver signal for the display, whereby the display generates an optical display image of the patient's eye; and a second deflection element arranged in the observation beam path for reflecting the display image of the patient's eye into the observation beam path, wherein the microscope is a stereomicroscope having a pair of observation beam paths, two of the first deflection elements are provided and allocated one to each of the pair of observation beam paths, two of the second deflection elements are provided and allocated one to each of the pair of observation beam paths, and two filters are provided and allocated one to each of the pair of observation beam paths for visualization of the different media of the patient's eye, wherein the display generates a true-color image, a false-color image, or a black-and-white image, or that the means for selecting the spectral band and polarization of the illuminating light, wherein the filter also functions to select the phase of the illuminating light. Lashkari et al '031 teaches of an ophthalmic stereomicroscope (Column 8, line 42-Column 9, line 55, wherein the ophthalmic stereomicroscope is shown in Figure 3) comprising a display for generating an optical display image in response to a driver signal received by the display (Column 8, line 42-Column 9, line 55, wherein the displays "285" and "285'" generate an image to the observer "280" and "280'", Figure 3); a first deflection element arranged in the observation beam path for diverting illuminating light reflected from the patient's eye out of the observation beam path (Column 8, line 42-Column 9, line 55, wherein the first deflection elements are "235" and "235'", Figure 3);

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a sensor arranged to receive light diverted by the first deflection element; the sensor generating a sensor signal representative of the light received thereby (Column 8, line 42-Column 9, line 55, wherein the sensors are “270” and “270” which generate a signal to deliver to the processors “300” and “300”, Figure 3); an evaluation unit connected to the sensor and to the display, the evaluation unit receiving and processing the sensor signal to provide a driver signal for the display, whereby the display generates an optical display image of the patient's eye (Column 8, line 42-Column 9, line 55, wherein the processors “300” and “300”, receive a signal from sensors “270” and “270” and deliver the signal to displays “285” and “285”, which display an image of the patient's eye, Figure 3); and a second deflection element arranged in the observation beam path for reflecting the display image of the patient's eye into the observation beam path (Column 8, line 42-Column 9, line 55, wherein the second deflection elements are “255” and “255”, Figure 3), specifically wherein the microscope is a stereomicroscope having a pair of observation beam paths (Column 8, line 42-Column 9, line 55, wherein the ophthalmic stereomicroscope has two observation beam paths “260” and “260” as shown in Figure 3), two of the first deflection elements are provided and allocated one to each of the pair of observation beam paths (Column 8, line 42-Column 9, line 55, wherein the first deflection elements are “235” and “235”, Figure 3), two of the second deflection elements are provided and allocated one to each of the pair of observation beam paths (Column 8, line 42-Column 9, line 55, wherein the second deflection elements are “255” and “255”, Figure 3), and two filters are provided and allocated one to each of the pair of observation beam paths for visualization of the different media of the patient's eye (Column 8, line 42-Column 9, line 55, wherein the filters are “275” and “275”, Figure 3), wherein the display generates a true-color image, a false-color image, or a

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black-and-white image (Column 4, lines 25-39 and Column 10, line 35-Column 11, line 37, Column 12, line 63-Column 13, line 10, wherein the display generates color, pseudo-color or black-and-white images, Figure 3), and wherein a filter functions to select the phase of the illuminating light (Column 10, line 49-Column 11, line 6, wherein the modulating source "145g" modulates the amplitude and frequency, and thereby phase of the illumination beam from the light source "145", Figure 7a) for the purpose of allowing direct stereoscopic observation of the fundus of the human eye using illuminating radiation and displaying the observations in an image (Column 4, lines 25-46). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the ophthalmic microscope of Volk '789 to further comprise a display for generating an optical display image in response to a driver signal received by the display; a first deflection element arranged in the observation beam path for diverting illuminating light reflected from the patient's eye out of the observation beam path; a sensor arranged to receive light diverted by the first deflection element, the sensor generating a sensor signal representative of the light received thereby; an evaluation unit connected to the sensor and to the display, the evaluation unit receiving and processing the sensor signal to provide a driver signal for the display, whereby the display generates an optical display image of the patient's eye; and a second deflection element arranged in the observation beam path for reflecting the display image of the patient's eye into the observation beam path, wherein the microscope is a stereomicroscope having a pair of observation beam paths, two of the first deflection elements are provided and allocated one to each of the pair of observation beam paths, two of the second deflection elements are provided and allocated one to each of the pair of observation beam paths, and two filters are provided and allocated one to each of the pair of



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observation beam paths for visualization of the different media of the patient's eye, wherein the display generates a true-color image, a false-color image, or a black-and-white image, and wherein the means for selecting the spectral band and polarization of the illuminating light, specifically the filter, also functions to select the phase of the illuminating light since Lashkari et al '031 teaches of an ophthalmic stereomicroscope comprising a display for generating an optical display image in response to a driver signal received by the display; a first deflection element arranged in the observation beam path for diverting illuminating light reflected from the patient's eye out of the observation beam path; a sensor arranged to receive light diverted by the first deflection element; the sensor generating a sensor signal representative of the light received thereby; an evaluation unit connected to the sensor and to the display, the evaluation unit receiving and processing the sensor signal to provide a driver signal for the display, whereby the display generates an optical display image of the patient's eye; and a second deflection element arranged in the observation beam path for reflecting the display image of the patient's eye into the observation beam path, specifically wherein the microscope is a stereomicroscope having a pair of observation beam paths, two of the first deflection elements are provided and allocated one to each of the pair of observation beam paths, two of the second deflection elements are provided and allocated one to each of the pair of observation beam paths, and two filters are provided and allocated one to each of the pair of observation beam paths for visualization of the different media of the patient's eye, wherein the display generates a true-color image, a false-color image, or a black-and-white image, and wherein a filter functions to select the phase of the illuminating light for the purpose of allowing direct stereoscopic observation of the fundus of the human eye using illuminating radiation and displaying the observations in an image.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Volk '789 in view of Lashkari et al '031, as applied to claim 2 above, and further in view of Nakamura US 2001/0010592, herein referred to as Nakamura '592.

Regarding claims 10-12, Volk '789 and Lashkari et al '031 disclose and teach of an ophthalmic microscope as shown above, but do not specifically disclose a shutter in the observation path, the shutter being operable to selectively block direct observation light from the patient's eye and a shutter between the display and the second deflection element, the shutter being operable to selectively block the display image of the patient's eye. Nakamura '592 teaches of a stereomicroscope including a first shutter for selectively blocking a light flux from a target and a second shutter for selectively blocking a light flux from a monitor (Section 36, wherein the microscope "11" includes shutters "24A" and "24B", Figure 3) for the purpose of allowing a user to selectively block a light flux from a target or a light flux from the monitor and to also provide an image of the target overlapped with an electronic image from the monitor when both shutters are open (Sections 36-37). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the ophthalmic microscope of Volk '789 and Lashkari et al '031 to further comprise a shutter in the observation path, the shutter being operable to selectively block direct observation light from the patient's eye and a shutter between the display and the second deflection element, the shutter being operable to selectively block the display image of the patient's eye since Nakamura '592 teaches of a stereomicroscope including a first shutter for selectively blocking a light flux from a target and a second shutter for selectively blocking a light flux from a monitor for the purpose of allowing a user to selectively

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block a light flux from a target or a light flux from the monitor and to also provide an image of the target overlapped with an electronic image from the monitor when both shutters are open.

***Response to Arguments***

Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection in view of Volk '789 as shown above.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

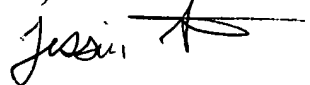
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica T. Stultz whose telephone number is (571) 272-2339. The examiner can normally be reached on M-F 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jessica T Stultz

Examiner

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January 17, 2007



**RICKY MACK**  
**SUPERVISORY PATENT EXAMINER**